

DETERMINANTS OF SON-PREFERENCE IN INDIA

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Abstract: Without exception, the desire for boy child has been a common phenomenon in the South Asian countries including India. Although the preference for sons in India has declined over the years, it persists across states, albeit in different degrees. Son-preference has various adverse outcomes including low child sex ratio and low rate of fertility transition, attracting the attention of scholars from various fields. While the phenomenon of son-preference is largely due to cultural beliefs and norms which cannot be altered significantly within a short period of time, there are a set of interdependent socio-economic factors helping the persistence of such a practice. These factors need to be identified and proper policies must be outlined to curb this prejudiced attitude. Present study attempts to understand the current scenario of son-preference across the states in India and identify the factors along with their persistence. The study concludes that son preference continues to be prevalent in the Indian society albeit with different intensities across regions. Strong son-preference attitude prevails in northern, central, eastern and north eastern regions of India while western and southern states record lower son-preference. Northern, central and eastern regions also record the lowest child sex ratios. Since fertility rates are on the decline and couples are opting for the small family size, preference for boy child will only accentuate the skewness in sex ratio. This is where policy intervention is necessary.

Keywords: Son-preference, child sex ratio, fertility rates, ideal family size, sex composition of children

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Introduction

Preference for sons over daughters has been a widespread phenomenon in most South and South-east Asian countries, India being no exception to this. Sons are preferred on the basis of three types of utilities: economic, social and religious (Arnold, et al., 1998, 2002). In India, the major cause of son-preference is due to the economic utility. Sons can participate in family farms and businesses; having better prospects in the labour market and expected to provide financial and emotional support to his parents in the old age. Sons can continue the family lineage whereas daughters are married-off and form part of another family (Das Gupta et al, 2003). The practice of dowry during marriage of a daughter poses a huge burden on the financial resources of the family while a son's marriage is an avenue for incoming financial resources. Also, according to Hindu faith, souls of deceased parents attain salvation when their sons lit the funeral pyre and perform the last rites. Aversion towards girl children can stem out from a variety of socio-economic and cultural factors wherein girls are considered to be a liability in terms of protecting her in adolescence, finding suitable groom, paying dowry, among many others (Robitaille and Chatterjee, 2017, 2018; Radkar, 2018).

Desire for male child has been one of the prime reasons for high fertility rates in India as the woman continues to bear children till a son (or desired number of sons) is born to her. Bearing a son is not only the sole responsibility and duty of the woman but is also an empowerment

enhancing tool in her marital family (Das Gupta et al, 2003; Robitaille and Chatterjee, 2017). Studies have shown that women with at least one son has to face lesser abuse and violence and her chances of facing future violence also decreases once her son is old enough to protect her (Rao, 1997; Robitaille and Chatterjee, 2017).

Son-preference has been a subject of interest to researchers because it has multiple adverse impacts on demography and society. It affects the attitudes and behaviour of couples regarding the total number of children they want, the sex composition of the children and also whether they want more children (Das Gupta et al., 2003; Mishra et al., 2004; Arokiasamy, 2002; Arnold et al., 1998, 2002; Clark, 2000; Pande and Astone, 2007; Radkar, 2018). Female infanticide and daughter-neglect are manifestations of preference for boy child, resulting in the highly skewed child sex ratio in India. This is often referred to as the 'missing women' or 'disappearing daughters'. Since daughters are considered a burden, sex-selective neglect after birth is a common phenomenon. Neglect of girl children is manifested in their poor and inadequate diet, immunization status, schooling, health care utilization (Arnold et al., 1998; Kishor, 1993), higher burden of household work (Lin et al., 2013) and is reflected in adverse health outcomes. It leads not only to low development of the girl children but also results in high morbidity and mortality rates. Pre-natal sex determination and sex-selective abortion has become prevalent in the last few decades (Robitaille and Chatterjee, 2018; Radkar, 2018). Instead of female infanticide or daughter-neglect, the 'unwanted' girls are not allowed to be born at all. Despite the implementation of the Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) (PNDT) Act in 1994, further amended in 2003 to become the Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Act, pre-natal sex determination and sex-selective abortion continue to be prevalent.

According to the National Family and Health Survey NFHS-4 (2015-2016), women between 15-49 years of age have reported an ideal family size of 2.2 children but their ideal family composition is 1.1 sons, 0.9 daughters and 0.2 children of either sex. This implies that in the choice of the sex of the child a woman is biased towards sons in comparison to daughters. Though declining son-preference has been recorded from NFHS-1 to NFHS-4, yet it continues to exist, despite declining fertility rates. In the light of above statements, the present paper attempts to study the existing scenario of son-preference in India and the factors contributing towards this phenomenon. Since fertility rates are on the decline and couples are opting for small size of the family, the preference for boy child will only accentuate the skewness in sex ratio. This is where policy intervention is an urgent requirement.

Literature review

In India, men have traditionally outnumbered women and skewed sex ratio has been an old phenomenon. While biology is regarded as an important factor, there are other social and cultural factors responsible for the skewed sex ratio in India and son-preference is one of them. Though it

is argued that son-preference is weakening in the recent years especially among the urban families, yet data reveal that it persists across the country. Son-preference has been a matter of interest to researchers for a variety of reasons. The impact of different social, economic and cultural factors on preference for sons has been widely studied. The role of education on whether a woman will prefer sons over daughters can hardly be exaggerated. Clark (2000) used data from the NFHS-1 (1992-1993) and concluded that the odds of desiring sons are higher among uneducated women than among women who have higher education. The more the woman is educated, the weaker is her son-preference. Pande and Astone (2007) used data from the rural sample of the NFHS-1 (1992-1993). They have used ordered logit model and results show that women with secondary or higher education have significantly weaker son-preference than women with lower levels of education. Radkar (2018) argues that son-preference can further become less significant with rising education and employment of women.

The economic status of the household is also a decisive factor for son-preference. Kashyap (2011) used data from the Delhi sample of the NFHS-3 (2005-2006). Using a logistic model she concluded that son-preference weakens with increased household wealth and higher levels of mothers' educational attainment. Gaudin (2011) used cross-sectional data from the NFHS 2 and 3 (1998-1999 and 2005-2006) and measured son-preference using the difference between ideal number of boys and girls divided by the ideal family size. She used maximum likelihood methods to conclude that lower preference for sons is associated with higher per capita state GDP (Gross Domestic Product), lower relative wealth, wealthier households, higher levels of education and higher media exposure. Basu and Jong (2010) used household-level data from the 1992 Demographic and Health Survey (DHS), India. They analyzed the effect of covariates on son targeting behaviour. They concluded that the age of the mother decreases the probability of son-targeting behaviour while the respondents' participation in the labour force increases the probability of son-targeting behaviour. Low and middle income families have a higher probability of son-targeting behaviour.

Besides education and wealth, the place of residence also determines level of son-preference. Robitaille (2012), whose study is based on data from the NFHS-3 (2005-06) and used the sub-sample of men and women who had never been married, measured son-preference as the ratio of boys desired by the respondent to the total number of children he/she desires. With the help of ordinary least squares method, she concluded that urban and better educated women with relative rich household background living in the southern and eastern states of India had lower son-preference. Similar results were found in the case of men as well. The attitude of son-preference is highly affected by the social and cultural set up of a country or a state. It has been documented that there is a stronger son-preference attitude in the northern and the eastern states in India as compared to the southern states mainly due to the stronger patriarchal norms prevalent in the northern and eastern states. Change in the existing social norms, attitudes of people and an

improvement in the status of women can result in significant weakening of preference for sons (Jayaraman et al., 2009).

In the recent years improved medical technology has helped in retaining the son-preference attitude. Pre-natal determination of sex is illegal but prevalent. People want to be sure about 'what' is going to be born. The direct and indirect pressure on women to have male heirs is immense and when a male heir is born, the worth of the woman in the family rises. Reproduction is a family decision influenced by societal norms rather than an individual decision. Robitaille and Chatterjee (2017) have analysed NFHS-3 data to conclude that the mother-in-law has a significant influence on son-preference by the daughter-in-law-a major reason for skewed sex ratios in India.

The Objective of the study

In the light of all this, the main objectives of the present study are: (i) Inter-state differentials in son-preference across Indian states, and (ii) to identify the major factors responsible for the son-preference attitude among women across the states in India.

Data sources and methodology

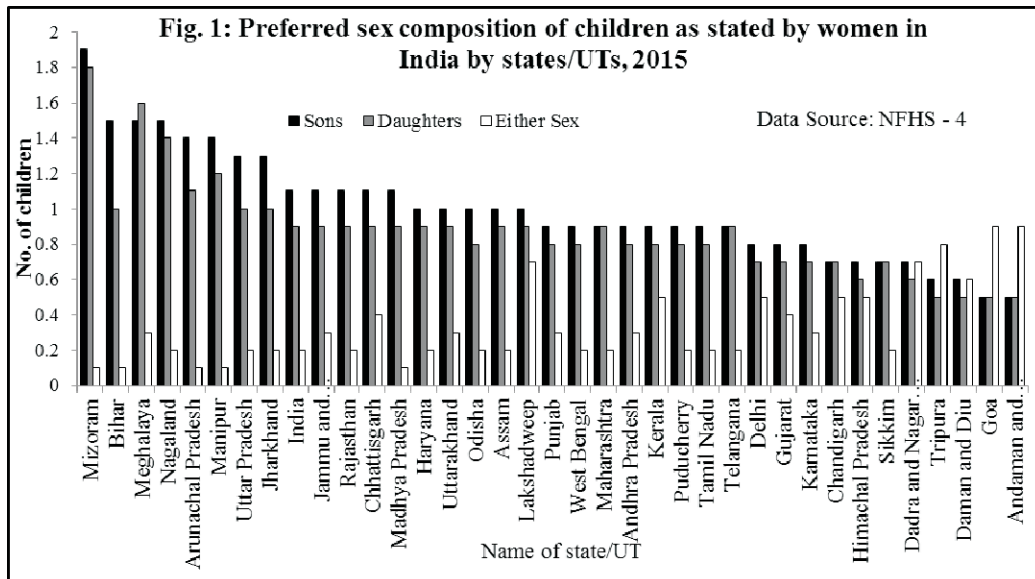
This study is based on sample survey data of **NFHS-4 (2015-2016)** and **Sample Registration System (SRS) Tables 2015** available from the Census of India-1991, 2001 and 2011. Statistical software IBM SPSS Statistics 20 has been used to analyse the NFHS data and ArcMap 10.2.2 has been used to generate maps. Data from Census of India 1991, 2001 and 2011 has been used to study the trends over time and across states, studied in relation with percentages of mothers desiring more sons than daughters. Data from SRS tables 2015 has been used to study the relation between son-preference and general fertility rates.

Binary logistic regression has been used to predict son-preference (i.e. dependent variable). To assess women's ideal number of children, NFHS-4 asked men and women the number of children they would like to have if they could start over again. Women with no children were asked, 'If you could choose exactly the number of children to have in your whole life, how many would that be?' Women who already had children were asked, 'If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?' Those who gave numerical response to either of the above questions were further asked how many of these children they would like to be boys, how many they would like to be girls and for how many the sex would not matter. Responses were entered as number of boys, girls or 'other'. Based on these questions, son-preference is coded as 1 if the mother reports ideal number of sons to be higher than ideal number of daughters and is coded as 0 if the mother reports ideal number of daughters to be higher than ideal number of sons or desires equal number of children of either sex. There is a common problem with the dependent variable 'son-preference', which is based on a subjective question. When respondents are asked

about their ideal sex composition of children, she either reveals her true preferences or provides a socially desirable answer. It is difficult to recognize the women who misreport intentionally- a major drawback of the dependent variable (Maitra, 2013).

Son-preference has been studied in the light of eight variables indicating various background characteristics including: (i) Age of the woman, recorded as continuous variable. This data set includes women between 15-49 years age; (ii) Education status of women- divided into four categories (0 if the woman is not educated, 1 if having primary education, 2 if having secondary education and 3 if having higher education), (iii) employment status of the women and her exposure to mass media are categorical variables (1 if she is employed and exposed to mass media and otherwise takes 0). NFHS 4 has recorded respondent’s media exposure by enquiring about the frequency (almost every day; at least once a week; less than once a week; or not at all) with which they read a newspaper or magazine, watch television, or listen to the radio. On the basis of these, the variable media exposure has been created (0 if the respondent does neither of these either daily or once a week, and 1 if the respondent does at least one of these daily or once a week). These variables are important to understand the attitude of a woman towards preference for son.

Household related variables include the **place of residence, religion, caste and wealth index of the household**. Type of place of residence consists of two categories (1 for urban and 2 for rural). Religion (Hindu, Muslim and Others), Caste variable (scheduled caste, scheduled tribe, other backward classes and others) and Wealth index has been provided by NFHS -4 on the basis of assets possessed by the households (poorest, poorer, middle, rich and richest).



BACKGROUND

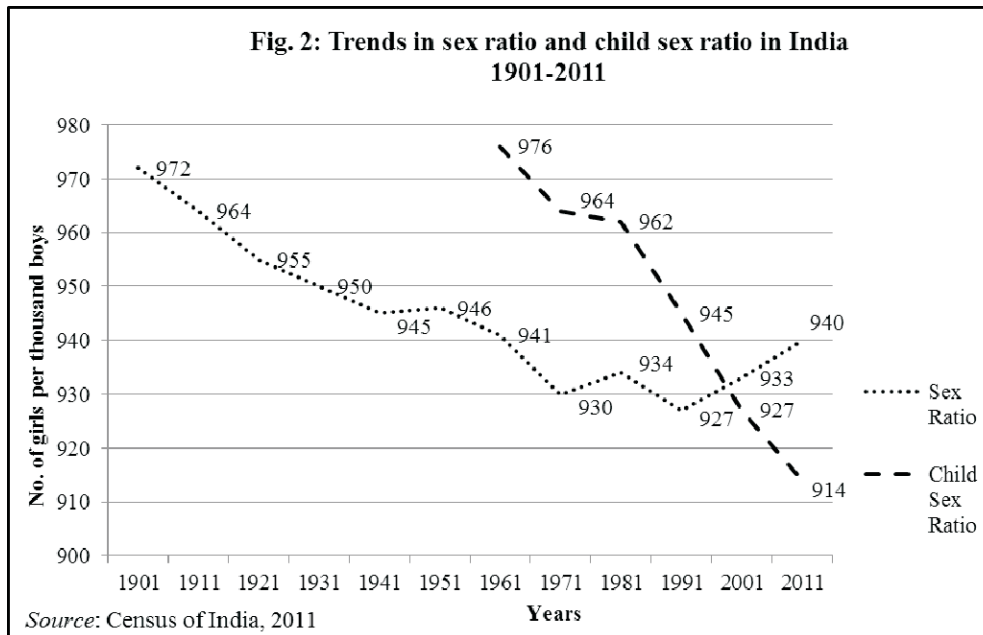
Son preference in India

The figure 1 depicts the ideal composition of children as stated by women of 15-49 years of age by states. Notably, this is the composition of children as stated by the women rather than the actual composition of living children. Each state has three columns: (i) the ideal number of sons, (ii) the ideal number of daughters, and (iii) the ideal number of children of either sex. Meghalaya is the only state where the women stated the higher ideal number of daughters than sons. In this state, 14.0 per cent women stated that they desire more sons than daughters, against 21.0 per cent reporting that they desire more daughters than sons. In all other states and union territories, the ideal number of sons is reported more than daughters. In states/UTs such as Maharashtra, Telangana, Chandigarh, Sikkim, Goa and Andaman and Nicobar Islands, the women stated the equal ideal number of sons and daughters. In Goa and Andaman and Nicobar Islands less than 2.0 per cent women desire more sons than daughters; also recorded the lowest difference between percentages of women desiring more sons than daughters/more daughters than sons. In southern states of Karnataka and Kerala also, there has been the low difference (about 5.0 per cent) between percentage of women desiring more sons than daughters and more daughters than sons. In contrast, very high difference is noted in Bihar (35.2 per cent), Uttar Pradesh (29.9 per cent), Jharkhand (25.1 per cent), Arunachal Pradesh (22.7 per cent) and Manipur (19.9 per cent).

Sex ratios in India

The sex ratio at birth (SRB) always favours males—about 105 males are born per 100 females—equals to 952 females born every 1000 males. Biology is generally considered to be the factor responsible for such skewness in sex ratio at birth. It is believed that some of the boys will not survive in due course and hence the ratio will get balanced. India has always experienced a skewed sex ratio, worsening decade after the decade. There were 972 females per 1000 males in 1901, which declined to as low as 927 in 1991 and again increased to 943 in 2011 (Fig. 2).

Child sex ratio (number of girls per 1000 boys 0-6 years of age) was better than overall sex ratio till 1991 (since fertility rate was high and at least some girl children were being born), after which child sex ratio has fallen below overall sex ratio (as fertility rates are declining and couples prefer smaller families; therefore the process of selection is gaining pace). Since 1991, the child sex ratio declined below 952 females per 1000 males (the natural sex ratio at birth) and has been continuously low during 2001 and 2011.



Son-preference, child sex ratio and general fertility rates

According to Radkar (2018), it is impossible to alter SRB in a short period of time without human intervention. Scholars are of similar opinion regarding the fact that there are non-biological factors responsible for the skewed sex ratio in India and son-preference is an important contributing factor for the same. Preference for sons over daughters has been a major reason for the lesser number of females compared to males, reflecting the patriarchal norms in India. The relationship among son-preference, child sex ratio and general fertility rates across states has been studied (see Map 1 (son-preference), Map 2 (child sex ratio) and Map 3 (general fertility rates)).

After a careful examination, the states have been grouped into the four broad groups, described in the following:

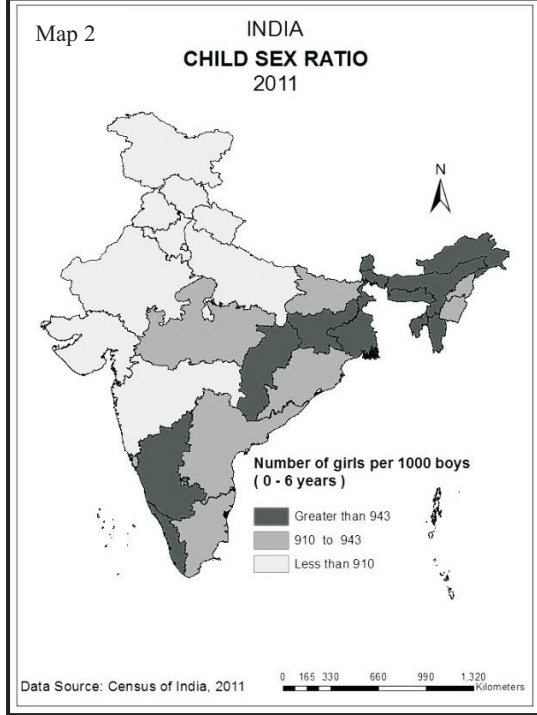
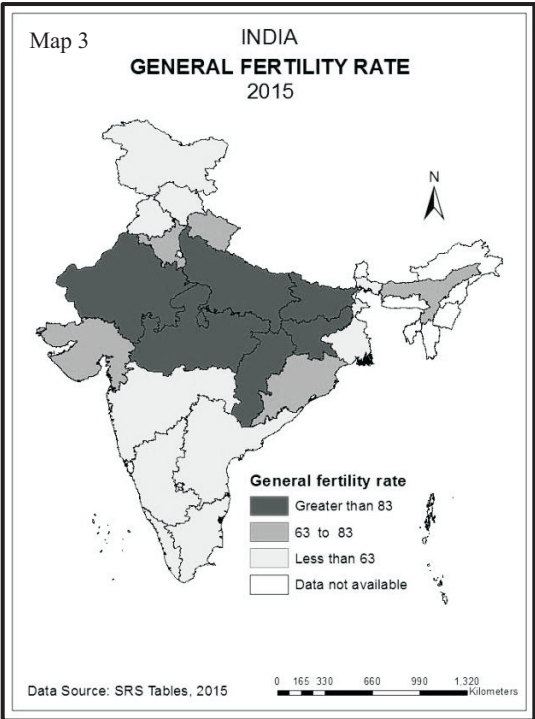
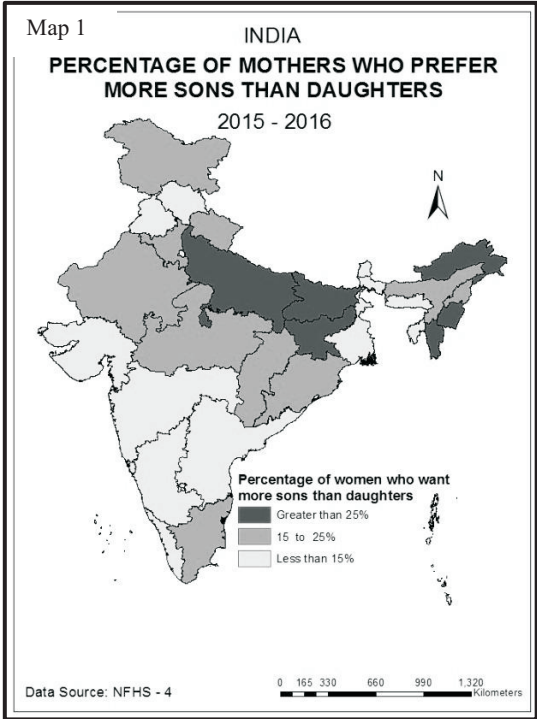
- i. **States with high son-preference and low child sex ratios:** The northern and central states such as Uttar Pradesh, Bihar, Rajasthan and Haryana fall under this category. They record high son-preference (>15 per cent) and low child sex ratio (< 910 girls per 1000 boys) and high general fertility rates.
- ii. **States with low son-preference and high child sex ratios:** The southern states such as Karnataka, Kerala and Tamil Nadu fall under this category. They record lower son-preference and high child ratios. General fertility rates are also lower in these states.
- iii. **States with high son-preference and high child sex ratios:** Jharkhand and Chhattisgarh fall under this category. They record high fertility rates, son-preference, and child sex ratio. The general fertility rates are high.

- iv. **States with low son-preference and low child sex ratios:** Maharashtra, Himachal Pradesh and Punjab are included in this category. These are the states with low son-preference as well as low general fertility rates.

Results and discussion

Table 1 presents the summary of results of the binary logistic regression. The dependent variable is son-preference, coded as 0 and 1.

It is observed that all the variables considered in the model are significant. This indicates that all these variables explain the preference for sons. The results are also consistent with earlier studies. Age of the woman is directly related to son-preference. Higher aged women show a stronger preference towards sons as compared to women of the lower age groups. The reason for such a tendency may be found under the strong patriarchy norms entrenched within the Indian society. As the age of the woman increases, she faces more pressure from her family to bear sons. Also, at higher ages, she becomes more concerned and worried about the family lineage and hopes that if she has sons, they will look after her in the old age. At lower ages, these matters may be of lesser concern to the women. Also, the lower age women may be exposed to more progressive views helping her do away with such prejudices. The relation between age of the woman and son-preference reveals a positive sign, since it can be expected that son-preference will weaken as the women in the lower fertility age believe less in this practice. The place of residence also has an influence on whether the woman will have a higher preference for sons. In rural areas the fertility rate is high, therefore, among many children there will be few sons and few daughters. On the other hand, since the fertility rate is low in the urban areas and couples prefer small families, the preference for son increases. For example, if a couple wants to have only one child, they might prefer to have a boy. Also, people in the urban areas have the choice to undergo pre-natal determination of sex and sex-selective abortion making it easier for them to manipulate the sex composition of their children. A gradient is observed in son-preference along the wealth index of the household. As one moves from poorest (lowest wealth index) to richest (highest wealth index) group of people, it can be seen that the intensity of son-preference decreases. This implies that there is lesser son-preference among the middle income group and the higher income groups. This can be better understood if we consider income as a function of education, whereby the more educated have more income, they fall in the upper income quartile (highest wealth index). As education increases, awareness also increases and people discriminate less between boys and girls. Therefore they have lesser son-preference. However, it must be remembered that son-preference is intricately related to the Indian social structure and some amount of son-preference exists in every quartile of the society, the variation in the rates makes the difference. All income groups prefer sons, but their intensity of preference varies. Similar results can be seen in the case of education level of the respondent. Compared to women with no education, the odds of preferring sons among women educated till the primary level is 2 times.



However, this again decreases as one becomes more educated. Though son-preference continues to be directly related to education, but the intensity of preference decreases with increase in educational level. As already mentioned, education creates awareness and people make little distinction between boys and girls. More educated women would prefer to have equal number of boys and girls or might even prefer girl children. Mass media plays an important role in creating awareness among people; hence women not exposed to media have a high preference for sons. Compared to scheduled caste population, scheduled tribes and non-scheduled population have a higher preference for sons. Religion is also an important determinant of fertility rates and choices, hence son-preference as well. The Hindus have lower son-preference than Muslims and other religious groups.

Category	Variable	Reference category	Coefficient	Sig.	Odds
	Age of the woman		0.024	0.000	1.024
Type of place of residence		Urban		0.000	
	Rural		-0.095	0.000	0.91
Wealth quintile		Poorest		0.000	
	Poorer		0.505	0.000	1.656
	Middle		0.281	0.000	1.325
	Richer		0.107	0.000	1.113
	Richest		0.106	0.000	1.112
Employment status		Not employed		0.000	
	Employed		0.083	0.000	1.087
Exposure to mass media		Exposed to media		0.000	
	Not exposed to media		0.427	0.000	1.533
Religion		Hindu		0.000	
	Muslim		0.222	0.000	1.248
	Others		0.532	0.000	1.702
Caste/tribe		Scheduled caste		0.000	
	Scheduled tribe		0.246	0.000	1.279
	OBC		0.036	0.270	1.037
	Others		0.279	0.000	1.322
Woman's education level		Not educated		0.000	
	Primary education		0.77	0.000	2.16
	Secondary education		0.531	0.000	1.701
	Higher education		0.216	0.000	1.241
	Constant		-3.469	0.000	0.031

Estimated by the author from NFHS-4.

Note: P-values at a 95% confidence interval, P-values =0.05 is considered as the significance level

Conclusion and recommendations

The foregoing discussion makes it evidently clear that son preference continues to be prevalent in the Indian society albeit with different intensities across regions. Strong son-preference attitude prevails in northern, central, eastern and north eastern regions of India while western and southern states record lower son-preference. Northern, central and eastern regions also record the lowest child sex ratios. Since fertility rates are on the decline and couples are opting for the small family size, preference for boy child will only accentuate the skewness in sex ratio. This is where policy intervention is necessary. Since son-preference is influenced by a set of interdependent socio-economic factors, the route to obliterate this phenomenon also lies in these factors. Data reveals that better educated women have low son-preference; therefore this can be used as a tool to further reduce the son-preference attitudes. Education opportunities should be enhanced for women. Policies should be directed towards improvement in the education, employment and empowerment status of women helping them to be more independent and hence less directed by social customs. Provision of incentives to families with girl children is an important way to make them realize that having girls in the families are not burdensome. The government can create awareness through mass media campaigns to promote equality between boys and girls. Since this is not a desirable situation both socially and demographically, the government must ensure better and stricter implementation of the existing laws to curb manipulation of sex composition of children.

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